

Technical Information
Material Safety Data Sheet

SDT-191L_04E

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| SECTION 1 | | CHEMICAL PRODUCT AND COMPANY IDENTIFICATION | |
| MANUFACTURE'S NAME | TELEPHONE NUMBER | FACSIMILE NUMBER | |
| GASTEC CORPORATION | +81-467-79-3910 | +81-467-79-3979 | |
| ADDRESS | | | |
| 8-8-6 Fukayanaka, Ayase-City, Kanagawa 252-1195, Japan | | | |
| REFERENCE NUMBER | | DATE PREPARED | |
| SDT-191L_04E | | April 16, 2009 | |
| PRODUCT NAME | Gas Detector Tube Acrylonitrile Detector Tube No. 191L | | |
| SECTION 2 | | COMPOSITION/INFORMATION ON INGREDIENTS | |
| Pretreatment Tube: Porous Silica Gel (0.5 g) impregnated with Sulfuric Acid (5-20%), and Chromic Anhydride (<5%) in a glass tube. Detector Tube: Porous Silica Gel (0.2 g) impregnated with Polyhydric Alcohol (10-20%), Mercury (II) Chloride (<1%) in a glass tube. | | | |
| SECTION 3 | | HAZARDOUS IDENTIFICATION | |
| Not applicable | | | |
| SECTION 4 | | FIRST AID MEASURES | |
| Eye contact: | Wash eyes immediately with plenty of water for at least 15 minutes and see a doctor. | | |
| Skin contact: | Wash affected area immediately with soap and plenty of water. | | |
| Inhalation: | Not applicable | | |
| Ingestion: | Rinse mouth immediately and see a doctor. | | |
| SECTION 5 | | FIRE FIGHTING MEASURES | |
| None | | | |
| SECTION 6 | | ACCIDENTAL RELEASE MEASURES | |
| Not applicable | | | |
| SECTION 7 | | HANDLING AND STORAGE | |
| When breaking off the tube ends, keep away from eyes. Broken glass tubes should not be picked up with bare hands. Tubes should be stored in a cool and dark place. | | | |
| SECTION 8 | | EXPOSURE PROTECTION | |
| Not applicable | | | |
| SECTION 9 | | PHYSICAL AND CHEMICAL PROPERTIES | |
| Mercury (II) Chloride, Chromic Anhydride, Sulfuric Acid: | | | |
| Flash point: | Not available | | |
| Autoignition point: | Not available | | |
| Polyhydric Alcohol: | | | |
| Flash point: | 116°C (tag sealing) | | |
| Autoignition point: | 402°C | | |

SECTION 10 **STABILITY AND REACTIVITY**

Mercury (II) Chloride:

Stability: Stable for heat and light.
Reactivity: Not available
Condition to avoid: Sunlight, Heat
Hazardous decomposition product: Mercury oxide or chloride may be formed.

Polyhydric Alcohol:

Stability: Stable. Hygroscopic
Reactivity: May cause explosion in contact with oxidant.
Condition to avoid: Sunlight, Heat, Open flames, High temperature, Sparks, Static charge, Other ignition sources
Hazardous decomposition product: Carbon monoxide may be formed.

Chromic anhydride:

Stability: Stable. Hygroscopic
Reactivity: Strong oxidizers. Contact with organic agents or metal powder may cause expose by heat or shock. Contact with organic agents may cause fire.
Condition to avoid: Sunlight, Heat
Hazardous decomposition product: Not available

Sulfuric acid:

Stability: Stable. Absorb moisture powerfully from the air.
Reactivity: React violently with water to evolve heat and may spatter. Bite into metals and concrete caused by oxidation. Carbonize to flammable organic materials
Condition to avoid: Sunlight, Heat, Moisture
Material to avoid: Organic materials, Reducing agents, Metals
Hazardous decomposition product: Sulfur oxides may be formed

SECTION 11 **TOXICOLOGICAL INFORMATION**

Mercury (II) Chloride:

Acute toxicity data: LCL0: (ihl, human): 300mg/m³/10 min.
LD50: (orl, rat): 1mg/kg
LDL0: (iv, dog): 2710 μ g/kg
LD50: (ip, mouse): 7165 μ g/kg
Irritation data: Skin; rabbit; 500mg/24h; severe
Eye; rabbit; 50mg/24h; severe
Mutagenicity: Chromosomal aberration test; hamster; wbc: 50 μ mol/L
DNA; damage; hamster; ovarian: 2500nmol/L
DNA; inhibition; mouse; wbc: 100nmol/L
dominant lethal gene test: rat; orl: 250mg/kg
Carcinogen: Not available

Polyhydric Alcohol:

Acute toxicity data: TCL0: (ihl, mouse): 10000mg/m³; watering eye, cough, breathing problem
LD50: (orl, rat): 1mg/kg
LDL0: (iv, rat): 2800mg/kg
LD50: (skn, rabbit): 9530mg/kg

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| Irritation data: | Skin; rabbit; 555mg; open system; minor Eye; rabbit; 100mg/lh; minor |
| Mutagenicity: | DNA; inhibition; human; lymphocyte; 320mmol/L |
| Teratogenicity: | TDL0: (orl, mouse): 7500mg/kg; (6-15 D preg) embryotoxicity; abnormal musculoskeletal |
| Carcinogen: | OSHA: Not listed NTP: Not listed IARC: Not listed |
| Chromic anhydride: | |
| Acute toxicity data: | LD50 (ip, rat): 58400 μ g/kg (RTECS) LD50 (iv, rat): 9260 μ g/kg (RTECS) LD50 (orl, mouse): 127mg/kg (RTECS) LD50 (ip, mouse): 14mg/kg (RTECS) LDLo (sc, mouse): 20mg/kg (RTECS) LD50 (iv, mouse): 17100 μ g/kg (RTECS) |
| Irritation data: | Not available |
| Mutagenicity: | Not available |
| Carcinogen: | as Hexavalent chromium; NTP: K (Prospective human carcinogen) IARC: Group 1 (Human carcinogen) ACGIH: A1 (Known to be carcinogen) Japan Society for Occupational Health: Group 1 (Human carcinogen) |
| Sulfuric acid | |
| Acute toxicity data: | LD50 (orl, rat): 2140mg/kg LC50 (ihl, cavy): 18mg/m ³ |
| Irritation data: | Eye; rabbit; 1380 μ g; severe |
| Mutagenicity: | Not available |
| Carcinogen: | Not available |

SECTION 12 ECOLOGICAL INFORMATION

Mercury (II) Chloride, Polyhydric Alcohol, Sulfuric Acid:

Not available

Chromic anhydride:

Biodegradability: Not available

Bioaccumulation Potential: Concentration scale factor (BCF); 4.6-15 (concentration, 100 μ g/l);
14-21 (concentration, 20 μ g/l); 11-43 (concentration 5 μ g/l); 16-72
(concentration 94-242 μ g/l)

Aquatic toxicity: LC50 (killifish): 82mg/l/48H

SECTION 13 DISPOSAL CONSIDERATION

This pretreatment tube contains 3.47mg of Hexavalent chromium.
This detector tube contains 0.39mg of inorganic mercury.
Dispose of in accordance with all applicable laws and regulations.
(Contact local environmental agency for specific rules.)

SECTION 14 TRANSPORT INFORMATION

Breakage of tubes caused by drops, high pressure or bends should be avoided.

SECTION 15 REGULATORY INFORMATION

Not applicable

SECTION 16 OTHER INFORMATION

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with

respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.